Sturgis (F. R.)

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ON THE AFFECTIONS OF THE MIDDLE EAR DURING THE EARLY STAGES OF SYPHILIS.

BY F. R. STURGIS, M. D.,

Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York, etc., etc.

COMPARATIVELY speaking, so little is known respecting diseases of the ear in syphilis that I hope the report of the following cases may be of interest to the readers of the JOURNAL. In this paper I shall devote myself to considering the early syphilitic lesions of the middle ear, those occurring in what is so often spoken of as the secondary stage of syphilis, reserving the late aural manifestations for future discussion.

These affections of the middle ear occur in one of two ways: first, independently of any other lesion of syphilis, coming on, so to speak, idiopathically; second, in connection with and extension from symptoms in the pharynx, such as mucous patches or the infiltrations of mucous membranes so common in this stage of syphilis.

The first symptom to attract the patient's attention to his condition is pain; and this is seldom severe, such as we find it at the beginning of an acute otitis media, but of a dull character, with occasional sharp twinges. During this period of the disease the pain is also nocturnal in character, having usually a marked periodicity about it, which at the first blush is apt to mislead the surgeon into the belief of its malarial origin, but the presence of the other manifestations of an early syphilis will put him on the right track. It is very rarely that

these symptoms are absent, but it sometimes happens that the otitis media has not appeared until the eruption of skin and mucous membranes has passed off; in other words, it comes on during the period of repose. Then it is that the nocturnal exacerbation of pain becomes of value in the diagnosis, and the condition of the tympanum in these cases, although not absolutely pathognomonic, is such as should excite suspicion as to its true cause. Let me illustrate this by

CASE I.

M. X. gives the following history: Primary lesion, apparent on April 21, 1873, was seated on the right side of the balano-preputial fold near the frænum, and attended with well-marked induration. Inguinal glands of both sides were also indurated. By May 16th the ulceration of the initial lesion, which was very superficial, had entirely gone, under the local use of calomel, although the induration there and in the groins was still evident. At this date he presented an erythema syphiliticum on the body, attended with nocturnal hemicrania, anterior and posterior cervical adenitis, and congestion of the fauces. There were no mucous patches in the throat nor on the tongue. He was then put upon the pil. hydrargyri et ferri, at first three daily, which was afterwards increased to four.

On June 5, 1873, the erythema syphiliticum had entirely disappeared. The induration of the initial lesion and of the inguinal ganglia was growing steadily less. There were no mucous patches in the throat, and the anterior and posterior cervical adenitis had diminished. He now for the first time reported a pain in the left ear of three to four days' duration, said pain extending along the upper and lower maxillæ, and becoming worse at night. Upon examination of the left ear, the tympanum was found sunken, succulent-looking, opaque, and without any light spot; the drum-head looked as though infiltrated with fluid. There was no congestion of the vessels. H. D. 3′.

Atropine was instilled into the ear, and the pills hydrargyri et ferri were continued.

On the 9th of the same month, four days later, the following record was made: Pain in the ear has entirely disappeared. Examination now shows the tympanum still sunken, but not so opaque as it was at the previous record, the light spot now commencing to be visible. It has also lost that succulent, semi-soggy look which it had on the 5th inst. H. D. and non-congestion of vessels still remain as before.

Improvement went on steadily as regarded the infiltration, the light spot reappeared, but the hearing-distance and the sunken condition of the tympanum were not materially altered. On October 1, 1873, he had an epileptic attack, probably due to syphilis.

There are some noteworthy points in this case which make it peculiarly interesting. First, there was a very short period of incubation between the appearance of the initial lesion and that of the erythema, — very much below the average. Second, at the period when the earache came on, all the other symptoms of syphilis likely to attract attention to the true cause of the ear lesion were absent; there was no erythema, and there were no mucous patches. It is true that the sclerosis of the initial lesion and of the inguinal glands was still evident, but it is not usual to examine a man's penis and groins to treat an otitis media catarrhalis unless there is good reason to suspect syphilis as a cause; hence the real origin of the trouble might easily escape notice but for one symptom, and that is the *nocturnal* character of the pain. When we pass on to the physical symptoms exhibited by the ear we experience a slight feeling of disappointment at the almost negative condition of affairs presented. One symptom, however, although *not* pathognomonic, is yet sufficient to cause suspicion and to lead to a careful questioning as to syphilis: it is the infiltration of the tympanum conjoined with absence of vascular congestion. The sunken drum in the case just given I at-

tach no importance to so far as syphilis is concerned; I think it antedated this latter, and that would seem to be borne out by its persistence when the other symptoms had gone; but the infiltration is analogous to what we find in syphilitic lesions of the skin and mucous membranes.

CASE II.

L. M. N. Initial lesion appeared May 7, 1873. Seen by writer on 19th of same month. Record then taken is as follows: Three ulcers on penis, — one on the free border of the prepuce, two in the balano-preputial fold; all on the left side. Those seated in the balano-preputial fold were slightly indurated; that on the free border of the prepuce was not. They were superficial in character, of a red color, and the secretion was thin and scanty. The inguinal glands on the left side were not at all indurated, and only one on the right side.

On May 23d, of the two ulcers in the balano-preputial fold, one had entirely healed, the other one had much improved. This was the only sore which now showed any induration. The ulcer on the free border of the prepuce was also doing well. The glandular enlargement on the right side has entirely gone, and none has appeared on the left side.

On June 13, 1873, the report reads: Ulcers have all healed. Within the past few days has noticed hemicrania, a feeling of lassitude, and rheumatoid pains, which come on at night. An examination of the body shows a commencing erythema of the trunk and of the fauces. There are no mucous patches of the tongue, throat, or mouth. A few papules are scattered throughout the hairy scalp, but there is no alopecia. Post-cervical adenitis present.

He was put upon the pil. hydrargyri et ferri, three daily, and on August 18, 1873, the record tells us that the symptoms detailed above had entirely disappeared. He has at the present time some pharyngitis. He

also reports a sensation of fullness and tinnitus in the left ear, with deafness of that side. There is no actual pain, but a feeling of malaise. An examination of the right ear shows nothing abnormal. Left ear shows a diminished light spot. Tympanum looks puffy and infiltrated, and is somewhat thickened. Hearing-distance diminished (no record, I regret to say, was made of distance).

Under treatment the light spot became normal in size; the tympanum had lost its soggy look, resuming its usual healthy appearance; and hearing-distance had come back to its normal standard. All this occurred in the course of three weeks.

The chief point of interest in this case is the coexistence of a syphilitic pharyngitis with the trouble in the ear, rendering it probable that the latter was due to an extension of the disease from the throat along the Eustachian tubes to the middle ear. This case differs then, from the first one narrated, in which the ear affection seemed to come on without any connection with or dependence upon other symptoms of syphilis.

CASE III.

The third case which I have to report is not so uncomplicated as the first two, inasmuch as there was a history of an old otitis media suppurativa. Still I believe that even here we may pick out the symptoms which are due to syphilis and those which are due to the older trouble.

F. G. H. was seen for the first time April 5, 1873. The history he gives is as follows: Initial lesion dates back to May, 1872; the treatment then was purely local. Three or four months afterwards he had slight nocturnal cephalalgia, with sore throat, alopecia, and an eruption (kind unknown) upon the arms and legs. Under internal treatment (probably mercurial) these symptoms disappeared. He has had recurrent attacks of sore throat, for which he has pursued treatment off and on. Four months after his initial lesion the sight

of left eye grew dim, but this he is positive took place without any inflammation or soreness. On April 5th he was seen for the first time, when the diagnosis of iritis of the left eye, mucous patches of the tongue, and syphilitic congestion of the throat was made.

He was placed under mercurial inunction, which was later on changed to the internal use of the protiodide of mercury and the instillation of atropine to the eye; he improved up to May 15th, when his disease again became active, as shown by the following note: Tongue has recovered. On the right anterior fauces is a decided ulceration. He complains of a pain in his right ear, of recent date. Upon questioning him closely he says he had a suppurative disease of both ears, but so long ago that his memory does not run back so far.

An examination of the right ear showed the tympanum sunken, and the light spot very much diminished in size. This membrane, besides being sunken, was opaque and soggy-looking; there was some congestion about the periphery and the site of the malleus.

Along the handle of the malleus is an interstitial deposit, crescentic in shape, which Dr. Roosa thought due to an old suppuration, but the present infiltrated look might arise from syphilis. Left ear showed some injection of vessels, the result of syringing. Tympanum is very much sunken, opaque, having a dull, thickened look, and without any light spot. Hearing distance both ears 11″. On May 17th it is recorded that the ulcer of the throat is reduced to one half its former size. The pain in the ear has almost all gone. Examination of right ear: tympanum has lost its succulent look, is more translucent, and is slightly reddened. Light spot as at last record. Left ear unchanged. May 20th. Ulcer of throat almost entirely healed up. The ear is nearly free from pain. Right ear: tympanum is more lucent and more normal in look. The crescentic exudation has diminished in size. Light spot dimly visible. Left ear as before.

June 10th. Throat well. Ear entirely free from

pain. Right ear : tympanum is sunken and opaque, but without the soggy, infiltrated look that it had before. The light spot is now present. Left ear unchanged. Hearing-distance, right ear, $= 12\frac{1}{2}''$; left ear, 10.

According to the usual custom of dispensary and hospital patients, he withdrew himself from further observation, but still not so soon as to prevent his case from being of interest for purposes of study. In the first place, we must bear in mind the existence of an old suppurative otitis media, which is shown in both ears, and which can be excellently studied in the left ear, which was spared by syphilis. The right ear is attacked, and in addition to the sunken, opaque look common to both ears the tympanum of the syphilitic ear becomes succulent-looking, as if it were infiltrated with fluid, and an exudation takes place, which Dr. Roosa believes is due to the older trouble, but which diminishes very considerably in size as the syphilis improves, and may perhaps have been aggravated by the disease, although not originally dependent upon it.

These three cases of mine resemble in their history and course Cases XIII. and XIV. reported by Dr. Albert H. Buck, of New York, in his capital paper on Syphilitic Affections of the Ear in the *American Journal of Otology* for January, 1879. The points which I believe, upon further knowledge of these cases, will be found of most diagnostic value are absence of acute inflammation and the infiltrated condition of the tympanum. These are not, I think, common to the ordinary forms of middle-ear trouble, whereas the opacity and sunken condition of the drum-head are.

I offer the reports of these three cases as a contribution towards the better understanding of a class of cases as interesting to me in my special studies as they are to my otological brethren.

16 West Thirty-Second Street,
New York City.